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Lessons from CopyrightX^{*}

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Beginning in 2013, I have organized each spring an unusual course on copyright law. I will do so again in 2015 and, I hope, for at least a few more years thereafter. Because it is part of the HarvardX distance-learning initiative,¹ the course has come to be known as CopyrightX. This essay describes and assesses the venture. Among the purposes of the essay is to provide some guidance to teachers considering similar projects.

The Course Structure

CopyrightX has three interlocking parts: a residential course on Copyright that I teach to roughly 100 students at Harvard Law School; an online course taught by Harvard Teaching Fellows to roughly 500 students throughout the world; and a set of affiliated courses, most of them based in countries other than the United States. They work as follows:

During each of the 12 weeks of Harvard University's spring semester, the students in the residential course watch a 90-minute recorded lecture that I have prepared, read some edited judicial opinions or articles,² and then attend two 80-minute classes. Nine of the 12 lectures consist of surveys of the principal sets of rules in copyright law; the other three present the main theories upon which scholars (and sometimes lawmakers) rely when shaping or evaluating the copyright system. The topics of the lectures are set forth below.³

1. The Foundations of Copyright Law: Treaties; Originality; and the Idea/Expression Distinction
2. Fairness and Personality Theories
3. The Subject Matter of Copyright
4. Welfare Theory
5. Authorship
6. The Mechanics of Copyright
7. The Rights to Reproduce and Modify
8. The Rights to Distribute, Perform, and Display

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^{*} In October of 2014, I presented this paper as the Peter Jaszi Distinguished Lecture on Intellectual Property at American University. The paper has been much improved by the comments I have received from Peter Jaszi himself and from Ana Enriquez, Niva Elkin-Koren, Nathaniel Levy, and Ruth Okediji.

¹ Information concerning HarvardX is available at <http://harvardx.harvard.edu>.

² The reading materials are available at <http://copyx.org/hls-syllabus/>.

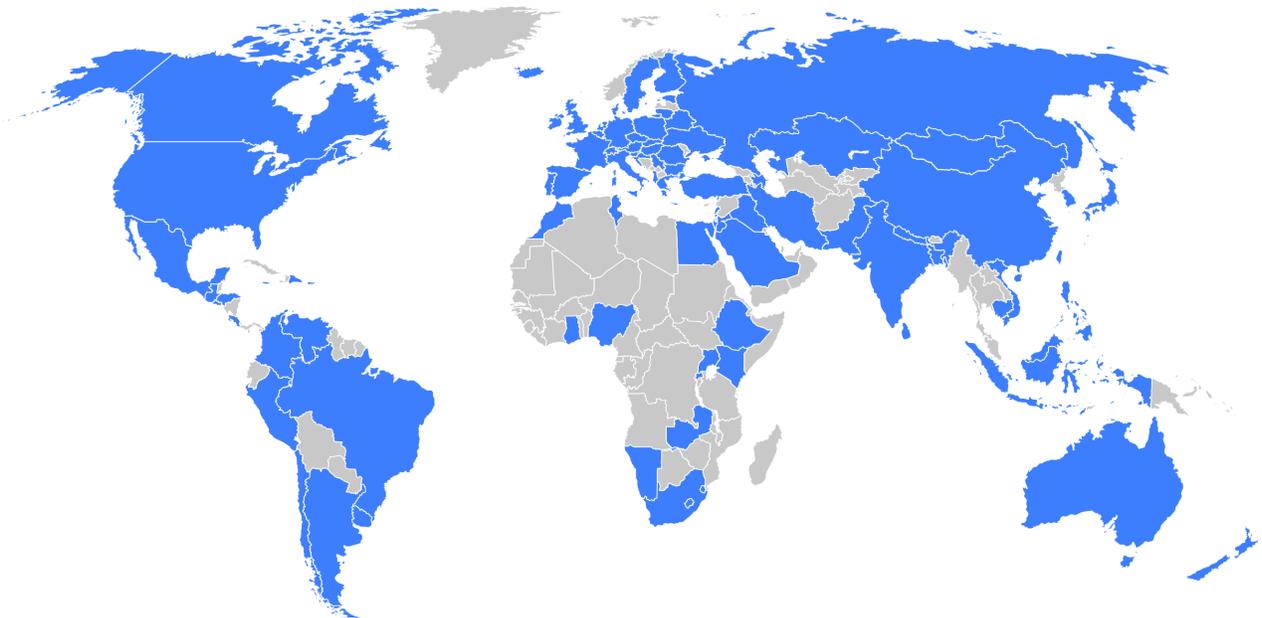
³ Recordings of all of the lectures are available, in a variety of formats, at <http://copyx.org/lectures/>.

9. Fair Use
10. Cultural Theory
11. Secondary Liability and Para-Copyright
12. Remedies

During the two live classes, I don't lecture at all, and I rarely focus on the assigned materials. Instead, I engage the students in Socratic discussions of case studies that raise difficult questions related to the themes of the week. All of the case studies examine real (not hypothetical) controversies. In form, they more closely resemble the kinds of case studies used in business schools than the cases typically employed in law schools. At the end of the course, the students take a reasonably traditional written examination designed to test their knowledge of copyright law and theory.⁴

The second piece of the puzzle – the online course – is free and is open to anyone over the age of 12. Enrollment, however, is limited. Persons interested in participating must complete an application, which includes an essay question. When making admissions decisions, we look not for educational attainment, but for manifestations of intelligence, competence in the English language, and commitment to completing the course. In addition, we strive to create a group of students that is diverse along many dimensions. Partly as a result, roughly half of the persons who to date have participated in the online course reside in the United States, while the others reside in 93 different countries. (A map of the countries that have been represented thus far appears in Figure 1, below.)

Figure 1



Half of the online participants are men; half are been women. Most are not lawyers but rather are engaged in fields affected by copyright law: music; film; photography; graphic art; journalism; software; library science; and so forth.

⁴ Examples of the exam are available at <http://copyx.org/courses/harvard-law-school/>.

The online course is taught, not by me, but by teaching fellows. Most are currently students at Harvard Law School. A few are recent graduates of the law school or are graduate students in other Harvard departments. All have taken or audited (or are taking or auditing) the residential course described above. Each teaching fellow is given responsibility for a “section” of 25 students.⁵

The pedagogy of the online course is similar to that of the residential course. Each week, the online students watch the same recorded lecture that the Harvard students watch and read a subset of the materials assigned in the Harvard class.⁶ Then, on Thursday, Friday, or Saturday, the students in each section attend a live 90-minute online seminar (using the Adobe Connect conferencing system⁷) in which the teaching fellow guides discussion of case studies identical or similar to those that I employ in the residential course. The meeting times of the seminars are staggered to enable students located in diverse time zones to attend. At the end of the course, the students have an opportunity to take a written examination that incorporates the principal portion of the exam given to the Harvard Law Schools students.⁸ To receive a certificate of completion, an online student must both satisfy a participation requirement (by attending 10 of the 12 weekly seminars for his or her section) and pass the written exam.

Last but not least, a growing group of universities and other organizations, most of them located outside the United States, are now offering CopyrightX courses – typically to their own students or to members of their own communities. A list of the institutions that will be offering such affiliated courses in 2015 is set forth below. The asterisks indicate the courses that will be offered for academic or professional development credit.

Country	Institution	Teacher
Australia	Monash University*	George Raitt
Brazil	Institute for Technology and Society	Ronaldo Lemos
China	Renmin University*	
Egypt	American University in Cairo	Nagla Risk
Germany	University of Hamburg	Wolfgang Schulz
Ghana	Advanced Information Technology Institute – Kofi Annan Centre of Excellence	Dorothy Gordon
Kenya	Content Development and Intellectual Property Trust	Alex Gakuru
Kenya	GoDown Arts Centre	Joy Mboya
India	National Law University, Delhi*	Arul Scaria
Italy	University of Turin	Giancarlo Frosio
Jamaica	Norman Manley Law School*	Sarah Hsia Hall
Netherlands	Institute for Information Law	Thomas Margoni

⁵ A list of the teaching fellows and links to their biographies are available at <http://copyx.org/people/teaching-fellows/>.

⁶ The readings for the online course are available at <http://copyx.org/copyx-syllabus/>.

⁷ For information about Adobe Connect, see <http://www.adobe.com/products/adobeconnect.html>.

⁸ Copies of the examinations given in 2013 and 2014 are available at <http://copyx.org/sections/>.

Nigeria	Nigeria Institute of Advanced Legal Studies	Helen Chuma-Okoro
Palestine	Palestinian Association for Protection of Intellectual Property	Mohammed Iriqat
South Africa	University of Cape Town	Tobias Schonwetter
Uganda	Makerere University	Francis Ssekitto
United Kingdom	Center for IP Policy and Management at Bournemouth University*	Maurizio Borghi & Argyro Karanasiou
United States	WilmerHale	Jennifer Garnett

All of the affiliated courses have the following features: the teacher is a university faculty member or someone who knows a great deal about the copyright system;⁹ no more than 30 students can be admitted; the students must watch the same 12 recorded lectures as do the Harvard and online students; and the course must include at least 12 80-minute seminars. In other respects, however, the affiliated courses vary. Most conduct their seminars in “real space,” but a few meet partially or wholly online. Some use the same curriculum employed by the online sections (which focuses on U.S. copyright law), while others blend the readings I have assembled with readings designed to illuminate the copyright systems in their own countries.¹⁰ The schedules of most of the affiliates mimic the schedule for the Harvard course and the online courses, but some adjust their starting and stopping dates to accommodate local academic calendars. Finally, the students in all of the affiliated courses are offered the opportunity to take a final examination that incorporates the principal portion of the Harvard exam but may also include questions that focus on the copyright systems of the countries or regions in which the courses are based.

In addition to the partial parallelism of their curricula, two things bind these various courses into a single community: the students in all three sectors of the course are invited to participate in an asynchronous online discussion (not open to the public); and a few times during the semester, the students in all of the courses are invited to participate – either in person or via a live, interactive webcast – in “events” where outside speakers discuss dimensions of the copyright system. A chronological list of the topics and speakers of the events held during 2013 and 2014 appears below.

<i>The Interests of Authors</i>	Dale Cendali, Richard Kelly, William Landay & John Drake
<i>IP Protection for Fashion</i>	Jeannie Suk & Chris Sprigman
<i>Extralegal Norms in Comedy</i>	Dotan Oliar & Jim Mendrinos
<i>Appropriation Art</i>	Shepard Fairey, Marita Sturken & Geoffrey Stewart
<i>Free Culture</i>	Larry Lessig

⁹ I review the qualifications of prospective teachers to ensure that this is true.

¹⁰ Some of the custom syllabi used by the affiliated courses are available at <http://copyx.org/syllabus/>.

<i>Orphan Works and Digital Libraries</i>	Robert Darnton & John Palfrey
<i>Creativity in Music</i>	Joshua Redman
<i>Copyright and Development</i>	Ruth Okediji
<i>The Roles of the Berkman Center for Internet & Society</i>	Chris Bavitz, Felix Oberholzer-Gee, Jeffrey Schnapp, and Stuart Shieber
<i>Copyright in the Creative Economy (hosted by CopyrightX: Kenya Copyright Board)</i>	Angela Ndambuki
<i>Negotiating Copyright Treaties</i>	Justin Hughes

As should be apparent, most of these events focus, not on the law of copyright, but on activities or interests that copyright law affects. Partly for that reason, fewer than half of the speakers have been lawyers. Thus far, the large majority of the events have been hosted at Harvard. In the future, I hope that a growing percentage will be hosted in other countries by the teachers of the affiliated courses.

Pedagogic Principles

Many of the features of CopyrightX reflect efforts to implement principles concerning optimal forms of education. Few of these principles are novel; most have been appreciated for decades if not centuries. However, online courses commonly ignore or violate them. CopyrightX functions in part as an arena in which familiar pedagogic guidelines can be applied, tested, and refined in a rapidly developing technological environment. The main principles and the ways in which I have tried to implement them are set forth below.

1. Active Learning. Students do not learn well when they merely listen to or watch lectures. They are much more likely to master and retain information and ideas when they put them to use – solving problems, debating their merits and applications, and so forth.¹¹

The most important of the dimensions of CopyrightX that reflect this fundamental principle is the discussion-based format. As indicated above, all of the students in all of the courses are obliged to attend and participate in interactive classes. A second, less obvious dimension is the use of teaching fellows in the online course. As indicated above, almost all of the teaching fellows are themselves students. Some have learned the material they teach in their seminars only a few days before the seminars themselves. All report that the kind of engagement with the material necessary to teach effectively, amplified by the discussions

¹¹ The literature that confirms and elaborates on this generalization is large. See, for example, A. Renkl, “From Example Study to Problem Solving,” 70 *Journal of Experimental Education* 293 (2002); R. Hake, “Interactive Engagement versus Traditional Methods,” 66 *American Journal of Physics* 64 (1998); Chet Meyers and Thomas Jones, *Promoting Active Learning* (1993).

they have with me and with their colleagues concerning their lesson plans, substantially deepens their understanding of that material.

2. The Interdependence of Theory, Doctrine, and Practice. As most law teachers will attest, understanding law requires much more than memorizing a collection of rules. It also demands, at a minimum, securing a critical understanding of the theories that either animate those rules or could be used to change them and acquiring an appreciation of how the rules influence behavior and the capacity to predict how they have been (or would be) applied to real controversies. Good legal education integrates works on these various levels.¹²

Several aspects of CopyrightX grow out of this principle: the weekly lectures oscillate between doctrine and theory; the classes focus on the application of doctrines and theories to case studies; and some of the events explore the impact of copyright law on fields of practice.

3. Multiple Media. Most people learn best when presented with information in a variety of complementary media. Partly for that reason, the recorded lectures contain little footage in which I appear as a “talking head.” Most of the time, my voice is combined with (or replaced by) visual or audio material – illustrating cases, suggesting typologies of arguments, and so forth.

One unusual type of material used in the course bears emphasis. I have prepared two “mindmaps” that contain all of my lecture notes for the course. The first presents all of the main sets of rules that together constitute copyright law; the second presents the main copyright theories. Excerpts from these maps frequently appear as part of the background in the recorded lectures. In addition, interactive versions of the maps themselves are available to all of the CopyrightX students (and to the public at large), for use as study aids.¹³ Many students have reported that this format makes the concepts easier to understand than a linear outline.

A possible reason for the apparent pedagogic value of the maps is suggested by Steven Pinker’s recent analysis of the psychological underpinnings of good grammar. Pinker argues, in brief: “Syntax ... is an app that uses a *tree* of phrases to translate a *web* of thoughts into a *string* of words. Upon hearing or reading the string of words, the perceiver can work backwards, fitting them into a tree and recovering the links between the associated concepts.”¹⁴ Pinker derives from this insight helpful guidelines for constructing the sentences and paragraphs in a lecture or essay. But his argument also suggests that a more efficient form of communication would be for a teacher to provide students a two-dimensional, expandable map that approximates the “web” of concepts in the teacher’s head.

¹² For an early explication of this principle, see *Report of the Harvard Law School Committee on Educational Planning and Development* (1982) (commonly known as the “Michelman Report”).

¹³ See <http://copyx.org/maps-of-intellectual-property/>.

¹⁴ *The Sense of Style* (2014), chap. 4 (emphasis in original).

4. Academic Freedom. Teachers should be given substantial autonomy in deciding what to teach, write, and say. The conventional justification for this principle is that it is necessary to shield teachers from political pressure and thus facilitates free intellectual inquiry.¹⁵ But there are two additional, equally important reasons: to attract people capable of becoming excellent teachers, one must offer them considerable autonomy; and pedagogic progress requires experimentation, which is fostered by giving teachers freedom to try different approaches.

For these reasons, I give the teaching fellows in the online course substantial autonomy in designing and conducting their classes. I do not provide them lesson plans or lists of the issues they must cover. Nor do I tell them which case studies they should use in their seminars.

To be sure, I do offer the teaching fellows guidance of several sorts. The recorded lectures, which both they and their students watch, set forth the principal themes of the course. All of the teaching fellows have participated in or audited classes in which I have taught some of the case studies to Harvard Law School students. And each Wednesday, before they teach their own classes, the teaching fellows meet with me for 80 minutes to discuss pedagogic strategy and options. But, in the end, they must make their own choices concerning what and how to teach.

The teachers of the affiliated courses enjoy even more autonomy. Most are experienced faculty members and thus do not need (and likely would not appreciate) guidance in planning their classes. As indicated above, many create customized syllabi that juxtapose U.S. law with the law in their own jurisdictions. And, like the teaching fellows, the affiliated faculty must decide which (if any) of the case studies to employ in their seminars.

5. The Wealth of a Network.¹⁶ The top-down, one-to-many structures of most MOOCs not only neglect opportunities for active learning, they also forfeit the potential benefit of the substantive contributions that might be made by participants other than the guru on the mountaintop. By contrast, I try to encourage such contributions.

For example, each teaching fellow is required to create or revise one case study during the semester. I provide the fellows assistance, of course; I identify cases or controversies they might select, suggest research strategies, and edit their drafts. But they do the bulk of the research and writing. A typical case study consists of a short summary suitable for distribution in class; a set of slides illustrating the controversy and germane law; and a 10-page teaching manual. The teaching fellow who creates a case study generates almost all of this material. His or her work product then goes into the basket from which the other teaching fellows, the affiliated faculty, and I draw when teaching our own courses.

Starting in 2015, this system will be extended to the affiliated courses. Each of the affiliated faculty will be asked to create at least one case study (either alone or with the aid of his or her students) highlighting the law of the country in which the affiliated course is

¹⁵ See, for example, Statement of the American Historical Association, July 19, 2013, <http://blog.historians.org/2013/07/aha-statement-on-academic-freedom-and-the-indiana-governor/>.

¹⁶ Cf. Yochai Benkler, *The Wealth of Networks* (Yale University Press 2006).

located. The result will be to help all of the other teachers (including me) enrich their classes with juxtapositions of copyright systems in different countries.¹⁷

The students in the online sections and the affiliates are also important sources of material. For example, Danny Rayman of Chile and Emilio Velis of El Salvador – students in the 2014 and 2013 online course, respectively – are collaborating in the preparation of Spanish translations of the twelve recorded lectures. Ali Tahvilian, who was a student in the affiliate offered by the University of Turin in 2014, has begun a Persian translation. Other groups of students have created outlines of all or portions of the course. We strongly encourage such initiatives – and post links to their work products on our Community Contributions page.¹⁸

6. Rigor. It is often asserted or assumed that complex systems of ideas must be simplified to make them accessible to broad audiences. CopyrightX rejects that proposition. The twelve recorded lectures are pitched at levels that will meet the demanding standards of Harvard Law School students; they have not been “dumbed down” in any way. The versions of the judicial opinions read by the online students and by the students in most of the affiliated courses are the same as the versions assigned at Harvard. Finally, to obtain a certificate of completion, all students must pass an exam that incorporates the principal portion of the exam given to the Harvard students.

To be sure, we do provide students without legal training some assistance in getting up to speed. For example, the online students (most of whom are neither lawyers nor law students) are encouraged to read, prior to the course, a guide to understanding and analyzing judicial opinions.¹⁹ And the teaching fellows frequently explain to their students technical features of the judicial opinions or case studies that are discussed in the seminars. But, with these aids, all students must wrestle with the most difficult questions in the field.

Assessment

Various indices suggest that, on balance, CopyrightX is working well. First, the students’ course evaluations are encouraging. The mean of the Harvard Law School students’ assessment of the “overall effectiveness” of the residential course was 4.66 (out of 5) in 2013 and 4.64 in 2014.²⁰ The students who completed the online course were similarly enthusiastic. In 2014, the mean of their evaluations of the overall effectiveness of the course was 4.57. (We neglected to ask this question in 2013.) Even more revealing are the online students’ assessments of the various ways in which the course might have benefited them. The means of their responses are shown below:

¹⁷ The first product of this new system is an excellent case study by Thomas Margoni, examining the changing standard of “originality” used in the European Union.

¹⁸ See <http://copyx.org/content/community-contributions/>.

¹⁹ Ana Enriquez, “Understanding Judicial Opinions” (2014), available at <http://copyx.org/understanding-judicial-opinions/>.

²⁰ The scale used in course evaluations is: 1=“unsatisfactory”; 2 = “poor”; 3 = “fair”; 4 = “good”; and 5 = “excellent.” All of the more detailed evaluations discussed in the remainder of the essay also use a five-point scale. For most, the meanings of the numbers are the same. A few, however, use the following scale: 1 = “not at all valuable”; 2 = “somewhat valuable”; 3 = “valuable”; 4 = “very valuable”; and 5 = “extremely valuable.”

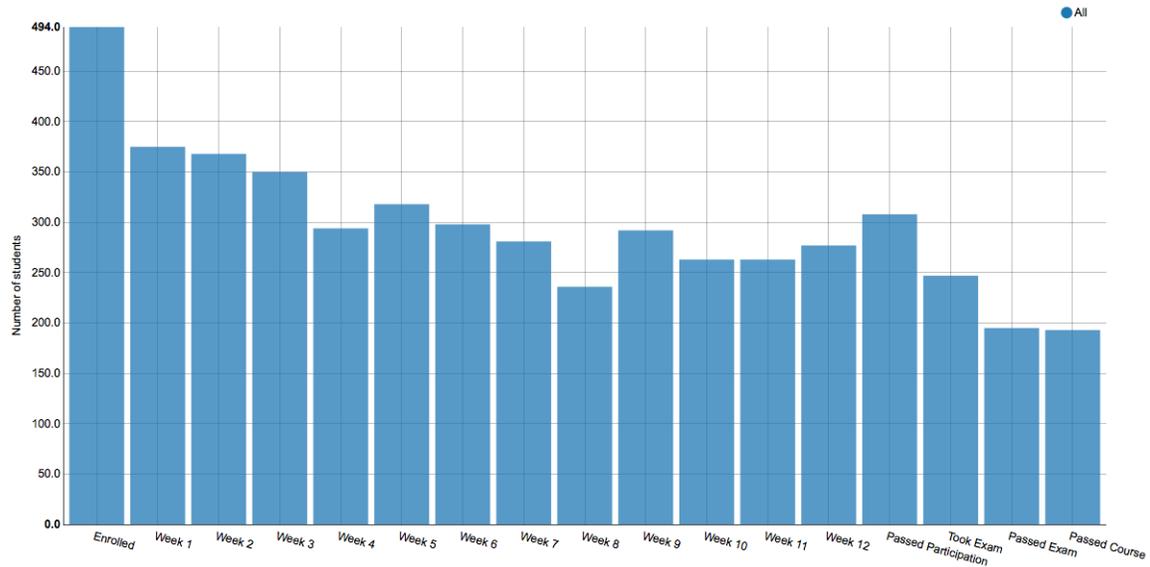
How valuable²¹ was your experience in CopyrightX for each of the following things?

	2013	2014
Increasing your intellectual curiosity	4.57	4.46
Improving your ability to contribute to civil society	4.08	3.88
Improving your ability to perform well professionally	4.11	4.18
Increasing your interest in sharing your knowledge with others	4.29	4.24
Improving your self-expression and creativity	3.79	3.72

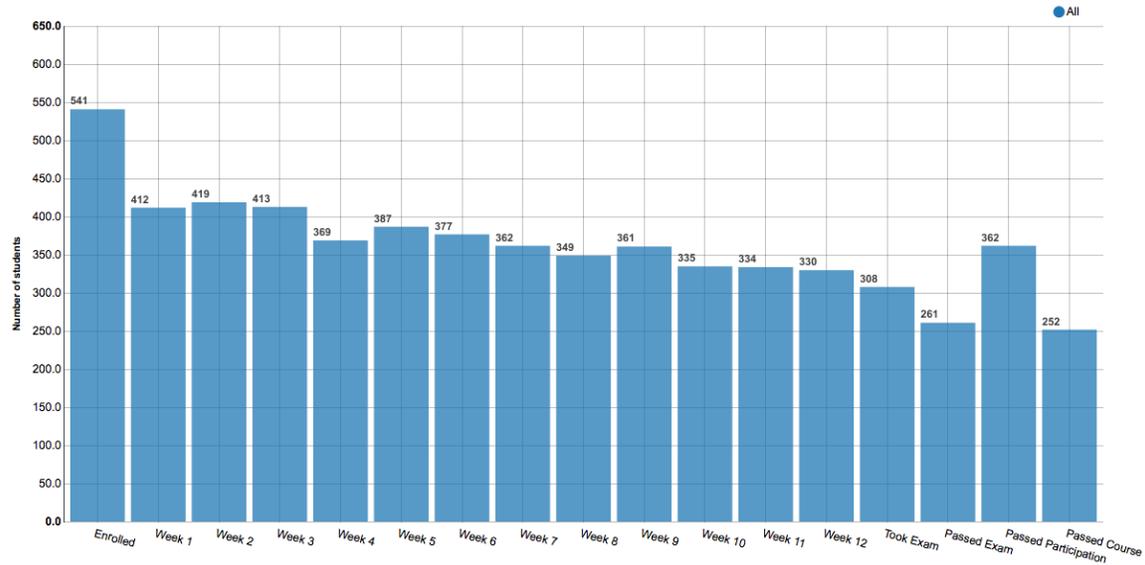
Another indicator of the overall value of the online course is the retention rate. The following charts show, for each year, the numbers of enrolled students who participated in each of the 12 weekly seminars, who satisfied the attendance requirement for receipt of a certificate; who took the final examination; who passed the final examination; and who received certificates of completion.

²¹ This is one of the questions for which the scale was “not at all valuable” to “extremely valuable.” See note _____, supra.

2013



2014



Retention might be measured in a variety of ways. If one compares the number of students who attended the first weekly seminar to those who attended the last one, the retention rate in 2013 was 74% and in 2014 was 80%. If instead one compares the number of students who enrolled in the course to the number who stuck with it to the end, took the exam, and passed it – and thus received certificates of completion – the retention rate in 2013 was 40% and in 2014 was 41%. Various other comparisons might be made using the

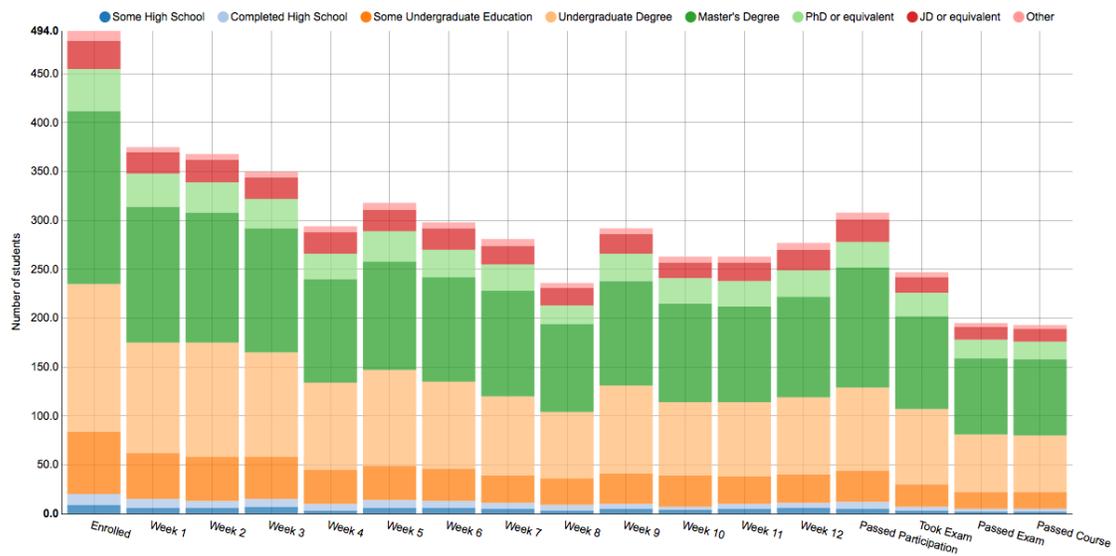
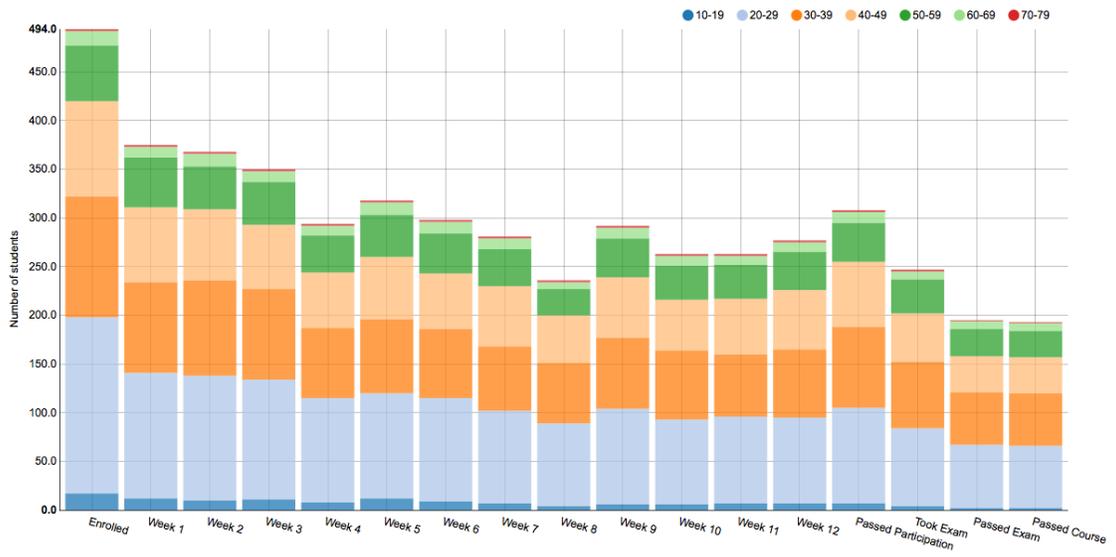
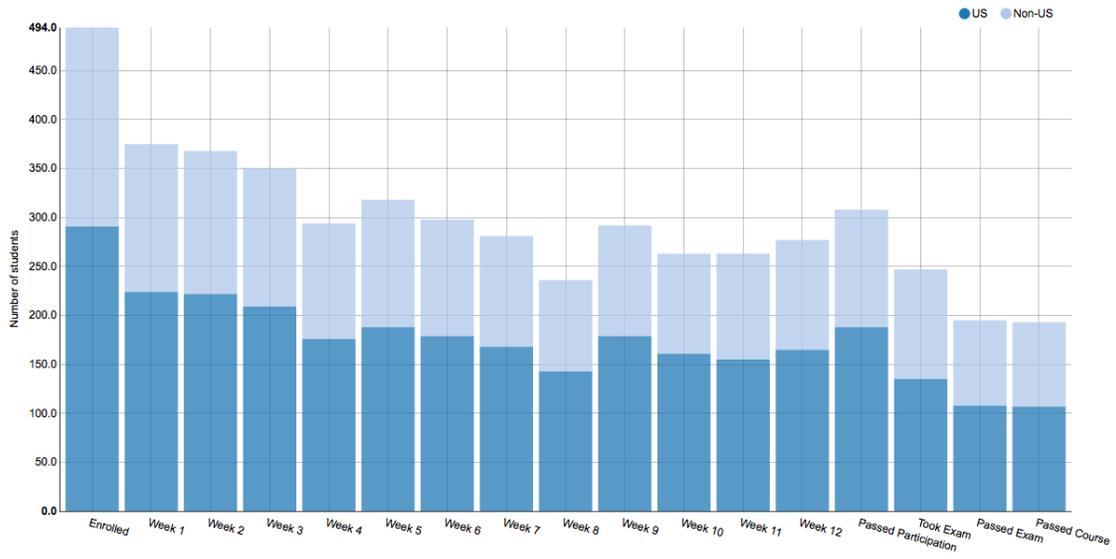
data in these charts. But by any measure, these completion rates are substantially better than those typically associated with free online courses.²²

To be sure, various factors other than the content and pedagogy of the course contributed to high retention rate. The obligation to complete an application and the risk of being rejected undoubtedly discouraged some potential students who would not have stayed the course. And, as indicated above, one of the criteria we employed in making admission decisions was manifestation of commitment. Whatever the cause, the fact that so many students complete the course is gratifying.

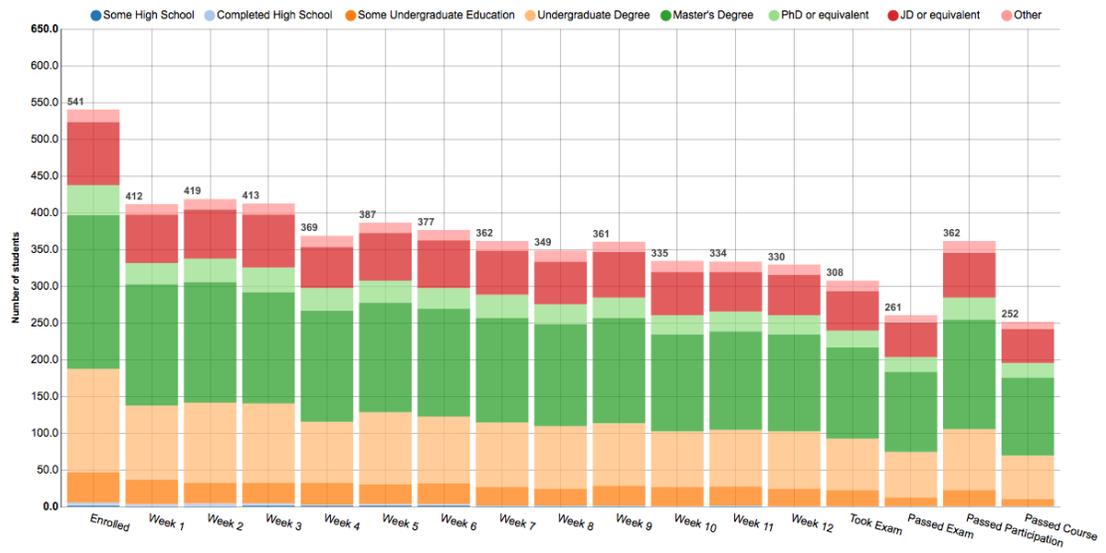
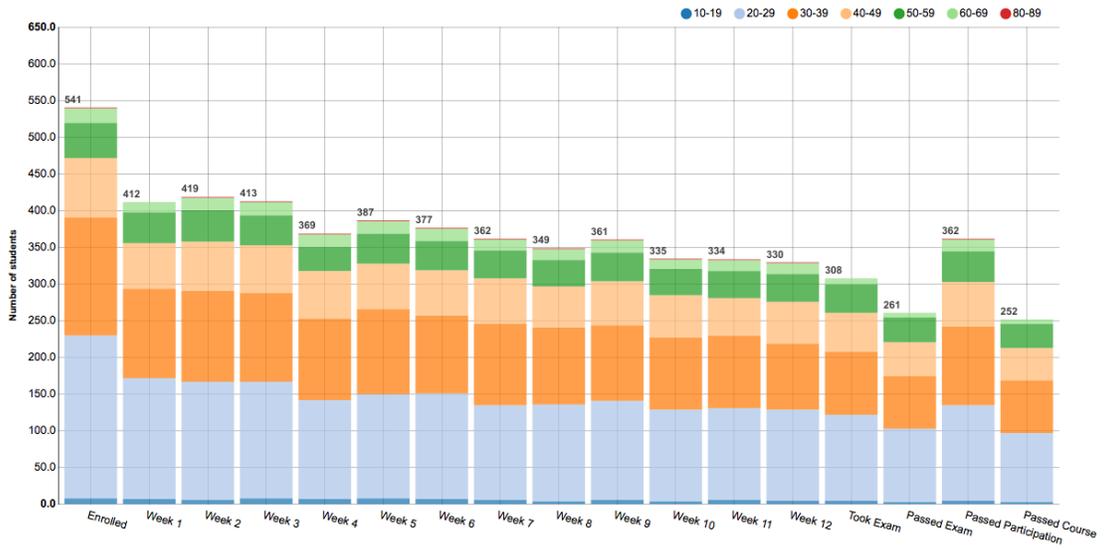
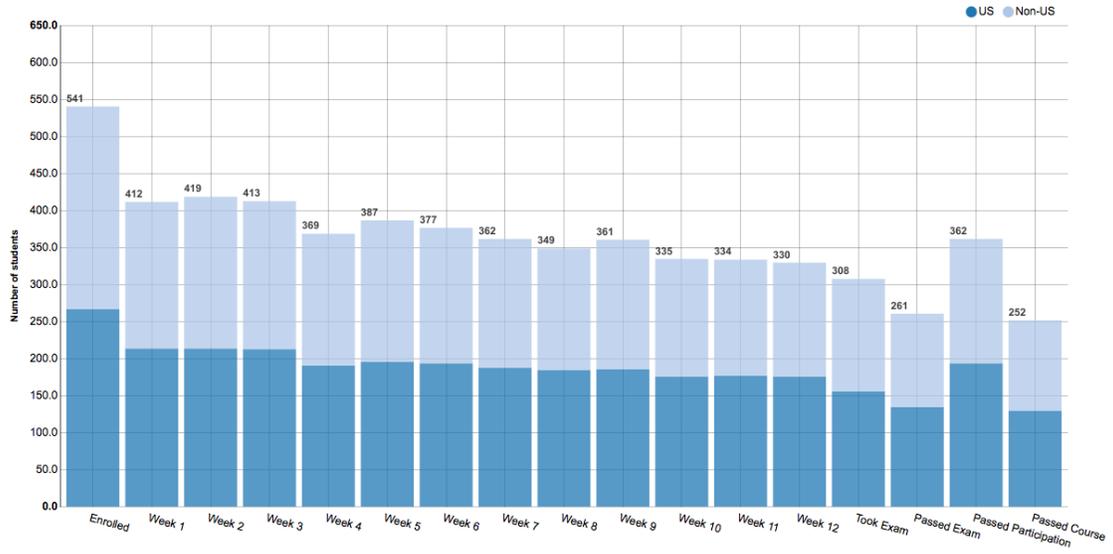
Our quest for diversity in our student body does not seem to have done any harm in this regard. As can be seen from the charts on the next two pages, the retention and success rates for all groups were similar. Non-Americans did approximately as well as Americans; and retention and success rates did not vary substantially with age or educational attainment.

²² The average completion rate for Massive Open Online Courses (MOOCs) is roughly 7%. See Chris Parr, "Not Staying the Course," *Times Higher Education*, May 10, 2013, available at <https://www.insidehighered.com/news/2013/05/10/new-study-low-mooc-completion-rates>. Justin Reich, however, has recently argued that this number is misleading, in part because it fails to differentiate students who, at the outset of a course, intend to complete it from those who do not. Using a sample of nine HarvardX courses, Reich found that 22% of the persons who said that they intended to complete the courses ultimately did so. See "Learner Retention Recasts 'Low' MOOC Completion Rates," December 8, 2014, available at <http://harvardx.harvard.edu/news/learner-intention>.

2013



2014



Of the various statistics latent in these charts, the following are perhaps the most significant: In 2013, 80% of the online students who satisfied the participation requirement took the final exam; in 2014, the rate was 90%. In 2013, 79% of those who took the exam passed it; in 2014, the rate was 85%. Those numbers were only modestly higher for lawyers than for nonlawyers.

The data we have gathered thus far from the affiliated courses are much less detailed. In particular, we do not have the benefit of standardized student course evaluations or demographic information of the sort summarized above. (Starting in 2015, we will.) For the time being, we have only two indicators of success: First, the retention rates for the affiliates were comparable to those of the online courses. Second, the teachers of the affiliated courses enthusiastically endorsed them.

That CopyrightX seems to be working well overall does not mean that all of its components are optimal. Figure 2, which shows the mean student evaluations of each of the major sectors of the course in the two years we’ve been in operation makes clear that, while some parts are running smoothly, others must be adjusted.

Figure 2

	2013 Harvard course	2013 online course	2014 Harvard course	2014 online course
Instructor	4.82	4.68	4.74	4.45
Recorded Lectures	4.29	4.58	4.62	4.56
Assigned Readings	4.23	4.11	4.05	4.20
Case Studies	4.47	4.53	4.71	4.41
Live discussions				3.95
Events	4.19	4.03	4.23	3.54
Online forum		2.91		2.42
Maps	4.40		4.76	

The extensive written comments submitted by the students in the various sectors of the course are consistent with these numbers, as are the impressions of the teaching fellows.

Some of the numbers are encouraging. Especially so are the students’ evaluations of the recorded lectures, the case studies, and the maps. These are the most innovative forms of “content” in CopyrightX, and all are rated highly.

Especially important are the high evaluations of the teaching fellows in the online course. The means of the online students’ evaluations of their teachers’ “overall effectiveness” were 4.68 in 2013 and 4.45 in 2014. The responses of the students to more detailed questions concerning the skills of their teaching fellows buttress these high aggregate assessments of their skills:

How would you rate your teaching fellow for each of the following:

	2013	2014
Knowledge of subject matter	4.76	4.41
Clarity and organization of presentation	4.58	4.64
Responsiveness to student questions during section meetings	4.82	4.66
Presentation/acceptance of alternative viewpoints	4.81	4.45

One of the hypotheses upon which CopyrightX rests is that Harvard law and graduate students, given a modest amount of guidance and considerable freedom in crafting their lesson plans, will be effective teachers. Were this not true, the online course could not function. I am thus much relieved to find the hypothesis confirmed.

Less impressive are the numbers in Figure 2 pertaining to the assigned readings and special events. Both should be improved. With respect to the assigned readings, I have edited the judicial opinions that will be assigned in 2015 much more tightly than I have done in years past.²³ (I was able to achieve this compression, without disabling students from consulting the material that I have omitted from the required readings, by using the remarkable H2O course-construction system developed by Jonathan Zittrain.²⁴) With respect to the special events, I hope in the future to introduce more comparative-law material – in part by enlisting the growing group of affiliate faculty in the organization and conduct of events.

Ironically, the most discouraging set of numbers in Figure 2 are those pertaining to the value of the asynchronous discussion forum. This is the pedagogic feature most commonly associated with online courses, so you might expect that it would be easy to do it well. Instead, to my surprise, it has proven especially difficult to organize an educationally rich online discussion. We've have tried many ways of stimulating and improving conversation; thus far, none has worked well. In 2015, we will try yet another approach. The principal adjustments we will make are: (a) concentrate all discussions in a single, plenary forum, while encouraging students in the individual online sections and affiliated courses to organize unsupervised small-group discussions using any of the many software applications suitable for that purpose; (b) structure the plenary forum in ways that will foster conversations across disciplinary and geographic boundaries; and (c) devote more of my own time to framing discussion questions and responding to students' reactions.

Thus far in this essay, I have assumed that the appropriate criterion when determining whether CopyrightX (or its various components) is succeeding is whether the various groups of students have found it valuable. That, of course, is not the only possible criterion. Set forth below are three more specific objectives that helped shaped the course design, followed by assessments of our progress on each front.

1. *Make high-quality education concerning copyright law widely accessible.* For better or worse, copyright laws increasingly affect people involved in a wide variety of professions and

²³ The 2015 versions of the readings are available at http://copyx.org/hls_syllabus_2015/ and <http://copyx.org/syllabus-for-online-sections-2015/>.

²⁴ See <https://h2o.law.harvard.edu>.

activities throughout the world. Most of those people lack the time, money, or inclination to attend law school. One of the ambitions of CopyrightX is to provide them access to the sort of education they could receive in law school.

We seem to be doing reasonably well on this front. The diversity of the countries from which the online students have participated, as well as the variety of professions represented in our student body, are sources of pride. I am also pleased by the wide variety of universities and institutions that will be offering affiliated courses in 2015.

However, it must be conceded that we could reach much larger audiences if we did not limit enrollment in both the online courses and the affiliates. Roughly 1000 students participate in CopyrightX each year. That number is tiny compared to the reach of many Massive Open Online Courses. So why don't we open our doors wider? The principal reason is that the pedagogic model of CopyrightX depends heavily upon close engagement of informed teachers with small groups of students. That model does not "scale" easily.

(This disadvantage, from the standpoint of the number of people we can reach, does have one concomitant benefit. Online courses are sometimes criticized as threatening to the teaching profession, because they enable a few lecturers to provide instruction to enormous numbers of students.²⁵ This criticism may have merit as applied to some MOOCs but is inapplicable to CopyrightX, because our pedagogic model depends upon maintaining a high ratio of faculty to students.)

In addition to diversity along the axes of geography and profession, I also hope to reach a broad socioeconomic spectrum of students.²⁶ If CopyrightX did nothing more than enhance the knowledge and skills of the economic and cultural elite in each country, I would be disappointed. Three dimensions of CopyrightX reflect our ambition to reach deeper:

- a. We attempt to lower the economic barriers to access by not charging tuition for the online course.
- b. When crafting the lectures and case studies, we try to minimize jargon and to provide, whenever possible, background information necessary to understand technical legal issues.
- c. The technologies we employ in running the course have been selected or adjusted so as to maximize access for persons who either lack reliable broadband Internet access or who have disabilities. For example, we make all of the lectures available in both high-resolution and low-resolution formats, and we are now using close-captioning systems for the lectures that increase their value for persons with hearing difficulties.

In combination, these initiatives have extended our reach well beyond the elite. However, on every dimension, we can and should do better. Thus, for example, we have

²⁵ See, e.g., Steve Kolowich, "Why Professors at San Jose State Won't Use a Harvard Professor's MOOC," *Chronicle of Higher Education*, May 2, 2013, available at <http://chronicle.com/article/Why-Professors-at-San-Jose/138941/>.

²⁶ Some of the reasons that underlie that aspiration are explored in the CopyrightX lecture on Cultural Theory – available at <http://copyx.org/lectures/>.

begun evaluating the accessibility of all of the course materials to persons with disabilities. And I could do more to annotate the course materials for nonlawyers.

Finally, I have recently adjusted CopyrightX in one respect in hopes of mitigating the restrictions on access to the course. From the beginning, I have posted on the Internet all of the lectures, readings, maps, and recordings of the “events” – and have authorized other teachers and the public at large to make use of those materials in any way they wished, subject only to the restrictions in the Creative Commons attribution-noncommercial-sharealike license.²⁷ However, Richard Stallman has persuaded me to open the doors even wider.²⁸ Henceforth, users’ only obligation will be to provide appropriate attribution to CopyrightX and Harvard University.²⁹ The purpose of this change is not to enhance the fortunes of for-profit educational institutions. The goal, rather, is to maximize the number and variety of educational projects and derivative works that can be built (directly or indirectly) on our foundation – and thus the set of students who might benefit from our efforts.

2. *Enhance the education of Harvard students.* This is one of the main objectives of the HarvardX program. The hope that experimentation in distance education would redound to the benefit of Harvard students is one of the main reasons why the university has been willing (thus far) to pay the very substantial costs of developing and running courses like CopyrightX.

In three respects, we seem to be advancing this goal. First, by honing the lectures and case studies to make them accessible to large, diverse audiences, I have made them more useful to Harvard Law School students. The recorded lectures are more concise, better documented, and more convenient to watch than the lectures I used to deliver “live.” To be sure, I could have done this without making those materials accessible to anyone other than my Harvard students. But, in truth, the prospect of opening my presentations to the public has nudged me to make them better.

Second, as mentioned above, the Harvard students who have served as teaching fellows have all reported that teaching their sections has sharply improved their understanding of copyright law and policy. My own assessments bear this out. By the end of the course, the teaching fellows show substantially greater mastery of the material than the Harvard students who have not opted to become teachers. I am also reasonably confident that the teaching fellows will retain their knowledge better and longer – although verifying this impression empirically is likely to prove infeasible.

Finally, a subset of the teaching fellows aspire to become full-time law teachers after graduation. Harvard Law School, like most law schools, offers potential teachers few

²⁷ For the terms of this license, see <http://creativecommons.org/licenses/by-nc-sa/2.5/>.

²⁸ The most persuasive of Stallman’s criticisms of the attribution-noncommercial-sharealike license is that successive generations of noncommercial derivative works created in reliance on that license will eventually give rise to “orphan” works – in other words, works that can never be put to commercial uses because it is impossible to locate and secure permission from all of the many persons (or their assignees) who have contributed to them. See “Online Educations is Using a Flawed Creative Commons License” (2012), <https://stallman.org/articles/online-education.html>.

²⁹ See <http://copyx.org/permission/>.

opportunities to learn the craft. CopyrightX now provides them one arena in which they can develop and test teaching techniques – as well as to assess, in a relatively low-stakes setting, whether they truly want to become teachers.

3. *Cultivate Wise Practice of Copyright.* One of my hopes is that CopyrightX will help and encourage its participants to use the copyright system wisely.

Wise practice entails, among other things, invoking or applying the law in a way that will advance its ultimate ends. That, in turn, requires knowing what those ends are. The three lectures that examine theories of intellectual property are intended, in part, to convey that knowledge.

To be sure, there is considerable disagreement among theorists concerning what goals copyright should be advancing. I do not attempt in the lectures, or in my teaching, to resolve that disagreement. Rather, I strive to inform students and viewers what the principal contentions are and thus to assist them in reaching thoughtful conclusions concerning the proper functions of the system. (Partly to afford them room to reflect, I wait until the tenth lecture to present my own perspective on the most attractive conception of those functions.)

An informed judgment concerning the ends of the system is not enough, however; at least as important is skill in determining what way of resolving or handling a dispute will advance those ends. That skill, I believe, can be acquired only through practice. One of the reasons why case studies figure so prominently in CopyrightX is to provide the students opportunities for practice of this sort. By exposing them to many real controversies, examining how the participants in those controversies did or could have employed the law, I hope not only to give students a feel for the “law in action,” but also to enable them to consider and discuss what resolutions of those controversies would promote the goals of the system as a whole.

Most of the people who take CopyrightX do so because they encounter the copyright system with some frequency in their professional or personal lives and thus want to understand it better. My hope is that, when, after finishing the course, they confront copyright questions or disputes, they draw upon knowledge and skills of the sorts just described. Of course, it would be foolish to think that they would act as philosopher kings, with no regard for personal or institutional self-interest. Rather, my hope is that the way they act or the advice they provide others will reflect, among other things, thoughtful pursuit of the public interest – as they understand that term.

Is the course succeeding in this respect? Anecdotal evidence suggests yes. Testimonials by some CopyrightX alumni – most of them nonlawyers – suggest that their capacities to engage in wise practice (in the sense just described) have indeed been enhanced. But as yet we have not devised a method for assessing our progress on this front systematically.

To summarize: on balance, I am happy with the performance of CopyrightX, but there are several dimensions that can be – and I hope will be – improved. Many of the flaws in the course to date are variants of a general problem: we have not yet fully capitalized on the potential latent in CopyrightX for the creation of a vibrant global community of faculty

and students engaged in the study of intellectual property. To be sure, the Harvard Law School students, the students in the online course, and the students in the affiliates do “speak” with one another in the discussion forum and the special events. But those conversations are not as common and deep as they could be. My principal overarching ambition when modifying the course will be to strengthen those ties.

Resources

CopyrightX requires resources of four sorts: technology; access to copyrighted works; people; and money. The challenges we have encountered in gathering and deploying these things have implications for teachers and institutions considering launching similar ventures.

Many sorts of technology are necessary to create and run a course of this sort:

- computers, to prepare the course materials and operate all aspects of the course;
- software, to support the application, admissions, and enrollment processes, organize and curate the course materials, administer the asynchronous discussion forum and the online seminars, track attendance, record grades, and manage the certificates of completion;
- a studio and an editing system, to produce the recorded lectures;
- cameras and related technical infrastructure, to webcast the special events;
- servers, to house and distribute the lectures and reading materials; and
- a high-capacity Internet connection to deliver all of these things to the course participants.

For this elaborate apparatus, we have relied on three related organizations: the Berkman Center for Internet and Society; EdX, a nonprofit consortium of Harvard University and the Massachusetts Institute of Technology; and HarvardX, Harvard’s separate online-education initiative.³⁰ We have been fortunate in that most of the necessary technological tools were already owned or controlled by at least one of these organizations when we launched CopyrightX. A university that set out to create a course like CopyrightX from scratch would likely find assembling a similar apparatus a formidable and expensive task.

The technological burdens on the universities and other institutions that are now offering courses affiliated with CopyrightX are less severe but not trivial. They too must have computers and, if they wish to conduct their seminars online, access to conferencing software.³¹ If, as I hope, the affiliates offer more webcast special events in the future, they will need even more technology.

³⁰ Descriptions of the three organizations may be found at <http://cyber.law.harvard.edu/about>; <https://www.edx.org/about-us>; and <http://harvardx.harvard.edu/who-we-are>.

³¹ As indicated above, we use Adobe Connect for the online sections – and have acquired from Adobe the licenses necessary to employ their system. Some of the affiliated courses use other, less expensive conferencing systems, such as AnyMeeting (see <http://www.anymeeting.com>).

Last but not least, to participate effectively in the course, a student must have two technological resources: a computer and a reliable Internet connection. We do our best to reduce the technological demands we place on students. For example, most of the students in the affiliates based in sub-Saharan African countries lack consistent access to the bandwidth necessary to download even the low-resolution versions of the recorded lectures – so each December, we load copies of the lectures and all of the course materials onto portable USB flash drives and mail them to the teachers of those courses. (Typically, during the first meeting of such a course, the students take turns using the flash drive to copy the course materials onto their laptop computers.) But we cannot eliminate altogether the technological impediments to participation. The result, unfortunately, is to limit the set of people who can take the course.

The second essential resource consists of copyrighted materials. The CopyrightX syllabi contain articles and excerpts of books, the recorded lectures include many excerpts from copyrighted works, and most of the case studies incorporate copies of the works over which the disputants were struggling. To reproduce, distribute, and publicly perform such things lawfully, we need either licenses from the copyright owners or privileges to use them without permission.

Overcoming this particular hurdle has been easier than one might think. The majority of the readings assigned in CopyrightX consist of edited versions of opinions issued by federal courts in the United States. Those opinions, fortunately, are not subject to copyright protection. (Obtaining copies of the opinions that are not encumbered by the contractual restrictions imposed by the dominant commercial legal-research services in the United States³² has not always been easy, but we’ve managed.) The copyrights in most of the articles I assign are held by their authors, all of whom have been generous in giving us permission to use them. Finally, the fair use doctrine, although not ideal as a safe harbor for teachers,³³ is broad enough to enable us to employ – for a nonprofit, educational purpose – excerpts of contested works in our course materials.

To be sure, we have encountered occasional difficulties. Some institutional copyright owners have demanded exorbitant fees or have insisted upon conditions that made it impossible for us to use their materials in the online sectors of the course. (The most unreasonable has been Oxford University Press.) And the automated systems used by YouTube³⁴ and other online service providers for detecting putative instances of copyright infringement have occasionally caused those organizations to block public access to my recorded lectures, compelling me to invoke the laborious procedures that must be used to persuade the OSPs to recant such “takedowns.” But such problems have been infrequent.

Unfortunately, the creators of online courses focused on non-legal topics are likely to find it more difficult to obtain the materials they need to teach effectively. Most of the

³² See LexisNexis Terms and Conditions, available at <http://www.lexisnexis.com/terms/>; Subscriber Agreement for Westlaw, available at http://legalsolutions.thomsonreuters.com/law-products/_ui/common/webResources/subscriber-agreement.pdf.

³³ See McGeeveran & Fisher, “The Digital Learning Challenge: Obstacles to Educational Uses of Copyrighted Materials in the Digital Age” (2006), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=923465.

³⁴ See “How ContentID Works,” <https://support.google.com/youtube/answer/2797370>.

secondary sources and some of the primary sources³⁵ a teacher would want to assign when teaching most subjects do fall within the zone of copyright protection, and securing permission to distribute such materials online will be hard or expensive.

Given the potential social value – and increasing popularity – of “distance education,” one might expect the copyright system to contain a mechanism that would mitigate the difficulty and cost of using copyrighted materials for teaching. And, indeed, the copyright statute of the United States contains a provision that purports to do so, encouragingly named the “TEACH Act” (shorthand for Technology, Education and Copyright Harmonization Act). Unfortunately, the privilege created by that act to use copyrighted materials in educational settings is subject to so many restrictions and conditions (most of them the fruits of effective lobbying by publishers) that it is almost useless for online education. For example, the act authorizes only “performances” and “displays” of materials, access to those materials must be limited to enrolled students, and students must not be permitted to retain the materials for longer than the class session in which they are used.³⁶ Such conditions deprive the TEACH Act of any value for a course like CopyrightX. And, indeed, almost no online courses rely upon it. Until the statute is amended, teachers of online courses will be obliged either to obtain permission for most of the materials they assign or to include in their syllabi only books and articles whose authors have made them available under Creative Commons or similar licenses.

The third resource is personnel. Four people have been crucial in creating and running CopyrightX. Nathaniel Levy, a staff member at the Berkman Center for Internet and Society, has been our Project Manager from the beginning. Kendra Albert, now a Harvard law student, was the Head Teaching Fellow in 2012-2013. Ana Enriquez, a graduate of Berkeley Law School and now also a fellow at the Berkman Center, has been the Head Teaching Fellow since the summer of 2013. Ed Popko, a staff member at the Berkman Center, is our Course Technologist. Ana works full time on the venture; Nathaniel and Ed devote substantial portions of their time.

Many people outside this core team have also contributed importantly. David Karger, a Professor of Computer Science at MIT and a pioneer in the development of online pedagogies, has been a highly valuable advisor as we have built the course. The staff of the Berkman Center has helped us construct and run the course website, promote the course, and organize the special events. And the staff of HarvardX has created and edited the lectures. In short, getting CopyrightX off the ground and keeping it flying has required considerable effort from many people.

We come finally to money. Running a course like CopyrightX is expensive. Our annual direct costs are now roughly \$130,000. That covers the salaries and benefits of our core staff, the cost of our software licenses, and our webcasting fees. But that number understates the true cost of the course. For example, excluded from that sum is the value of

³⁵ For an exception, see “The Ancient Greek Hero,” <https://www.edx.org/course/ancient-greek-hero-harvardx-cb22-1x#.VjmFFbgItKc>.

³⁶ For a more extensive discussion of the TEACH Act and its limitations, see Kenneth Crews, “Copyright Law and Distance Education: Overview of the TEACH Act” (August 17, 2010), available at <http://copyright.columbia.edu/copyright/files/2010/08/teach-act-summary-by-kenneth-crews.pdf>.

my time, David Karger’s time, the teaching fellows’ time (they receive academic credit, not compensation), and the time of the affiliate teachers – as well as the extensive in-kind support we receive from the staff of HarvardX.

To date, roughly 40% of the money necessary to operate CopyrightX has come from HarvardX; the balance has come from Harvard Law School and the Berkman Center. Unfortunately, this financial model is not sustainable long term. So we are now in the process of seeking alternative sources of funds.

One potential source is law firms, some of which have strong commitments to the public interest in general and to experimentation in legal education in particular. To date, WilmerHale and Kirkland & Ellis, both law firms with strong intellectual-property divisions, have agreed to support the venture.

A second source is the set of academic institutions that offer affiliated courses. During the first two iterations of CopyrightX, we did not ask the affiliates for any financial contribution. However, in hopes of enabling the venture to survive in the long term, we have now begun to do so. Specifically, we are requiring institutions that offer CopyrightX affiliated courses for academic credit or professional-development credit to pay modest fees to help us cover our costs. To reduce the hazard that this system will prevent poorer universities from joining the community, we are engaging in differential pricing,³⁷ and we have exempted from the new system the ten institutions that helped us create the affiliate system. But, new affiliates located in prosperous countries are being asked to help with our expenses. Monash University in Australia took the lead in developing this new arrangement. Bournemouth University in England and Renmin University in China have also recently joined the CopyrightX community under this arrangement.

The principal rationale for the new financial system is that all of the members of the growing CopyrightX community should contribute to sustaining it, to the extent they are able. Although I am persuaded by this argument, I worry that the new regime may corrode the spirit of voluntarism and sharing that has characterized CopyrightX from its inception. I very much hope not.

A more fundamental point underlies these prosaic considerations. The substantial per-student cost of running a course like CopyrightX means that distance learning on this model will not solve the intensifying financial crisis in higher education – or at least will not solve it as quickly and decisively as the more enthusiastic advocates of MOOCs have sometimes claimed.³⁸ The CopyrightX model provides, we hope, a way to make higher education both better and more widely available – but not to make it dramatically cheaper.

³⁷ Specifically, institutions located in countries classified as “high-income economies” by the World Bank (as of June 1, 2014) will pay a fee of \$500 per enrolled student; institutions located in countries classified as “upper-middle-income economies” by the World Bank will pay a fee of \$150 per enrolled student; and institutions located in countries classified as either lower-middle-income economies” or “low-income economies” will pay no fee.

³⁸ See, for example, Fiona M. Hollands & Devayani Tirthali, “MOOCs: Expectations and Reality” (2014), pp. 74-81, available at http://www.academicpartnerships.com/sites/default/files/MOOCs_Expectations_and_Reality.pdf.

And we have not yet fully worked out mechanisms for making it financially sustainable without sacrificing its ambitions. That will be among our tasks in the next few years.